Canadian Natural Gas

›› Monthly Market Update

December 2009

›› Oil and Gas Policy, Analysis and Regulatory Affairs Division
Petroleum Resources Branch
Energy Sector

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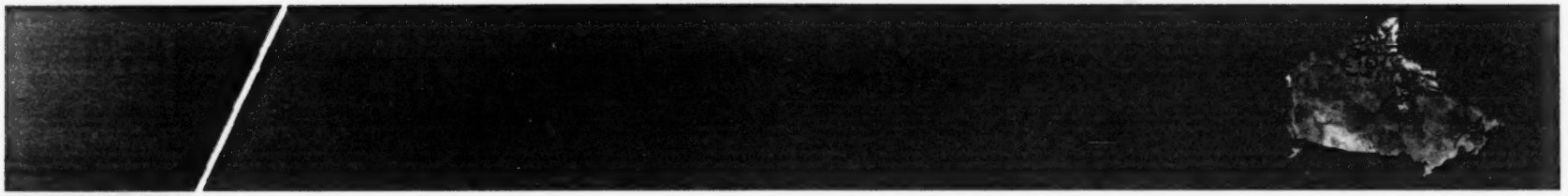
Canada



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ISSN 1920-4418

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Foreword

The Canadian Natural Gas: Monthly Market Update is a monthly analytical paper prepared by the Petroleum Resources Branch of Natural Resources Canada. The report provides the most recently available data on natural gas prices and related fundamentals.

Please direct any comments or questions to Laura Cervoni at (613) 992-1023, or by email at laura.cervoni@nrcan.gc.ca

Executive Summary

Despite relatively bearish natural gas fundamentals, North American natural gas prices continued their recovery and are hovering around $5/GJ. Natural gas continues to trade at a significant discount relative to crude oil. In a prepared statement accompanying the National Energy Board's (NEB) Winter Outlook, the NEB noted that owing to robust inventories of natural gas going into the heating season, Canadians should expect to see wholesale prices between $4-5.50/MMBtu.

Factors putting upward pressure on natural gas prices are the declining supply as well as the improving economic outlook. Pushing back down on prices will be the record natural gas storage inventory, as well as the potential for more liquefied natural gas (LNG) imports coming into North America if the prices move higher.

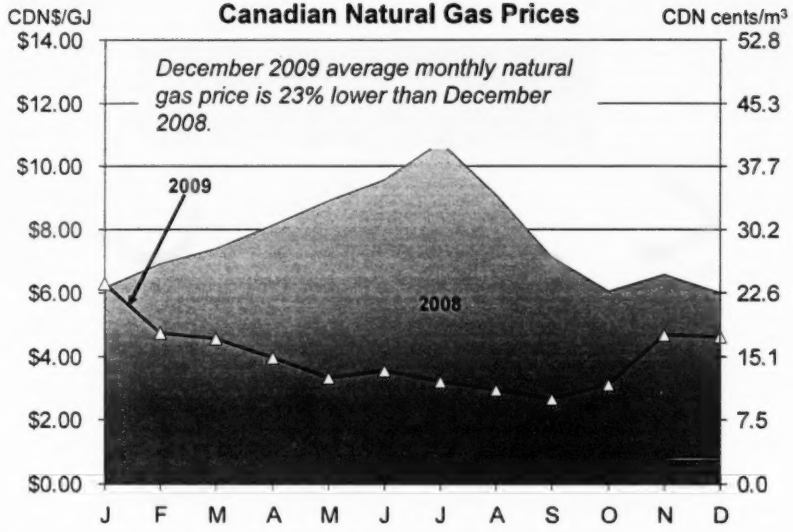
In response to low prices this year, producers reduced drilling activity and shut in some gas production. Canadian production is down, as are exports to the US. However, the impact on North American production will likely be dampened owing to rapid growth from US unconventional supply.

Natural Gas Market Fundamental	Value	Percentage Change	
		Month 09 vs. Month 08	Month 09 vs. Previous Month 09
Prices, CAN $/GJ (Dec-09)	4.61	-23%	-2%
Heating Degree Days (Dec-09)	715	-3%	+78%
Production, Bcf (Oct-09)	404	-13%	+4%
Sales, Bcf (Oct-09)	180	+1%	+45%
Exports, Bcf (Oct-09)	239	-14%	-16%
Imports, Bcf (Oct-09)	43	+27%	-7%
Storage, Bcf (Dec-09)	611	+10%	+2%
Drilling, wells (Dec-09)	144	-94%	-38%

Note: GJ: Gigajoule; Bcf: Billion Cubic Feet

Sources:
- *Crude Oil and Natural Gas (Preliminary)*, Statistics Canada
- *Natural Gas Transportation and Distribution, 55-002*, Statistics Canada
- *Supply and Disposition of Crude Oil and Natural Gas, 26-006*, Statistics Canada
- *Drilling Highlights*, Daily Oil Bulletin website: www.dailyoilbulletin.com
- Canadian Natural Gas Focus, GLJ Energy Publications Inc.
- *Natural Gas Storage Survey*, Canadian Enerdata Ltd.
- *Natural Gas Export Statistics*, National Energy Board website: www.neb-one.gc.ca
- Canadian Gas Association, website: www.cga.ca

Figure 1

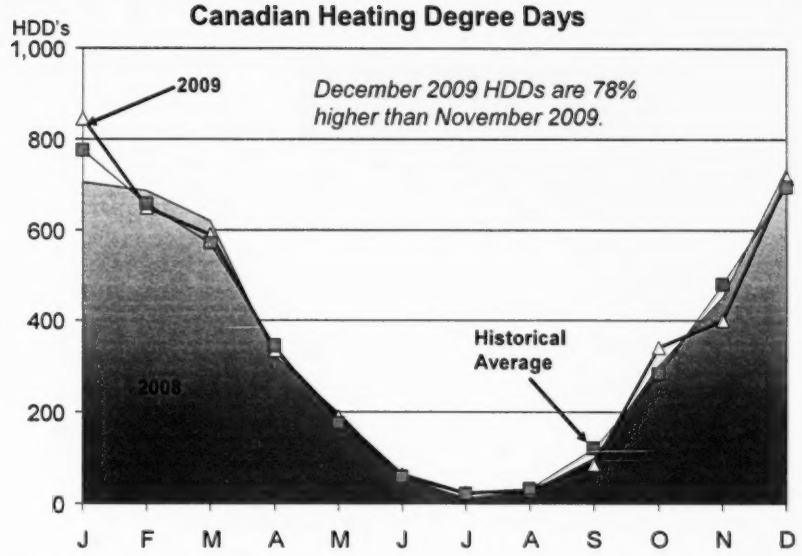


Source: GLJ Energy Publications **Note:** Canadian price is the Alberta price at the AECO hub.

Figure 1 illustrates the price of natural gas at the major Canadian pricing point – the Intra-Alberta market, a.k.a. AECO . The price is for gas delivered under a 30-day contract. The Intra-Alberta market is formed by gas delivered to pipelines in Alberta. Gas changes hands via Nova Inventory Transfers (NIT), exchanges at the AECO storage hub, or sales facilitated by the Natural Gas Exchange (NGX). This is a commodity price – a wholesale price in the producing area. Consumer (or "burner tip") prices will also include pipeline transmission and distribution costs, which vary across Canada. Natural gas is commonly measured in gigajoules (GJ) or cubic metres. A gigajoule is an energy unit, which equates to about 27 cubic metres of natural gas.

AECO natural gas prices averaged CDN $4.61/GJ in December 2009, 2% lower than the previous month and 23% lower than December 2008.

Figure 2



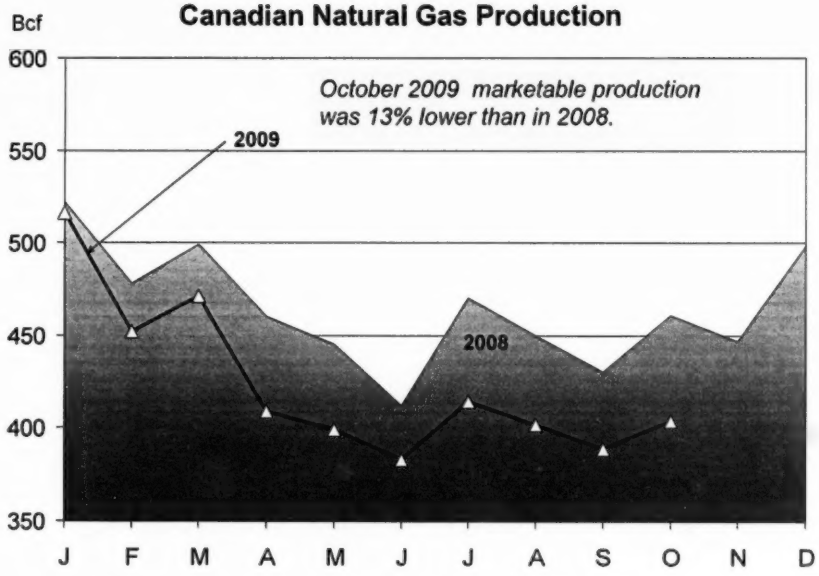
Source: Canadian Gas Association, NRCan

Figure 2 shows Canadian heating degree days (HDDs), which are a measure of how cold it is. The more HDDs in any season, the greater is natural gas demand for space heating. If a winter is unusually cold, demand for space heating will respond accordingly and natural gas prices will tend to be stronger. However, during a mild winter, natural gas demand for space heating will be weaker, which will tend to moderate prices.

In December 2009, there were 715 HDDs, 3% less than December 2008, and 78% more than the previous month. On average, December 2009 had 3% more HDDs than normal.

Figure 3

Canadian Natural Gas Production



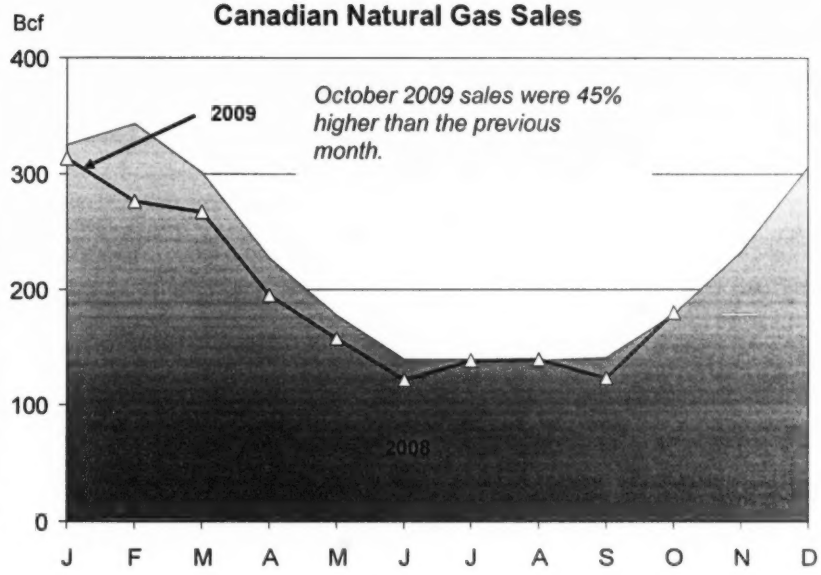
Source: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 3 shows marketable natural gas production in Canada. Marketable natural gas is the gas available for consumption after processing and excludes producer or plant uses.

Marketable natural gas production for October 2009 was 404 Bcf, 13% lower than 2008.

Figure 4

Canadian Natural Gas Sales



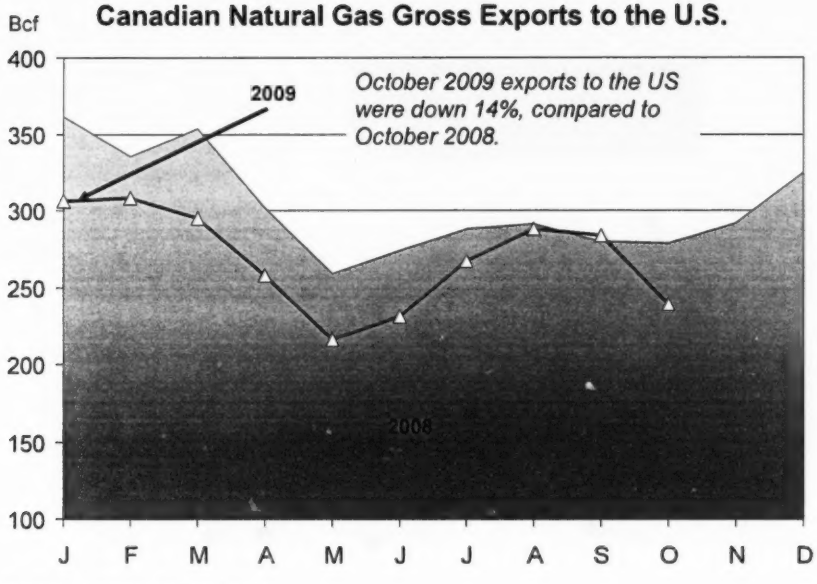
Source: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 4 illustrates total Canadian natural gas sales. Sales include all natural gas sold to residential and commercial users (for space and water heating, cooking, etc), industries and electricity generating units in Canada. The totals do not include consumption by the natural gas industry itself (e.g., pipeline compressor fuel).

Natural gas sales to Canadian consumers in October 2009 were 180 Bcf, 1% higher than October 2008.

Figure 5

Canadian Natural Gas Gross Exports to the U.S.



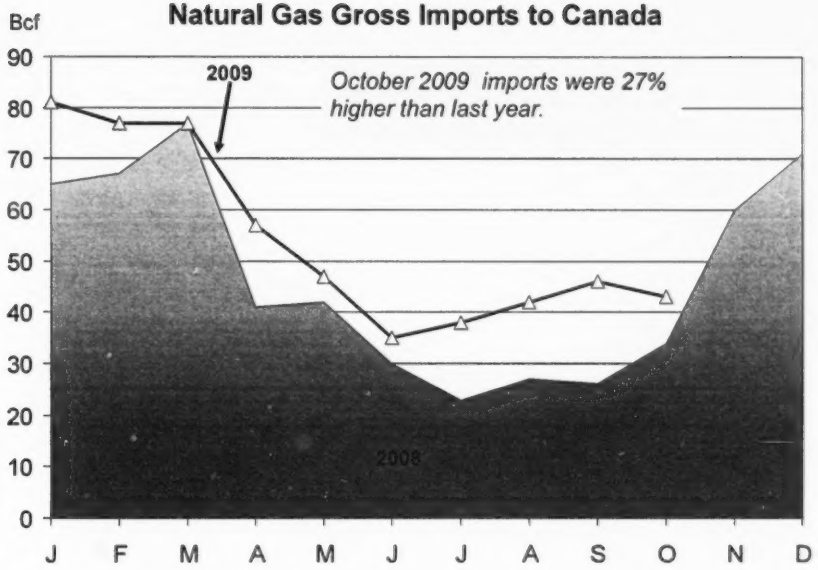
Source: National Energy Board

Figure 5 illustrates natural gas exports to the U.S. Canadian natural gas requirements are met mostly by domestic sources, as Canada produces natural gas in excess of what is required for domestic consumption. In comparison, the U.S. consumes more natural gas than it produces, therefore natural gas imports are required to make up the difference. Typically, Canada exports between 50 and 60 per cent of its gas production.

In October 2009, natural gas exports to the U.S. were 239 Bcf, 14% lower than October 2008.

Figure 6

Natural Gas Gross Imports to Canada



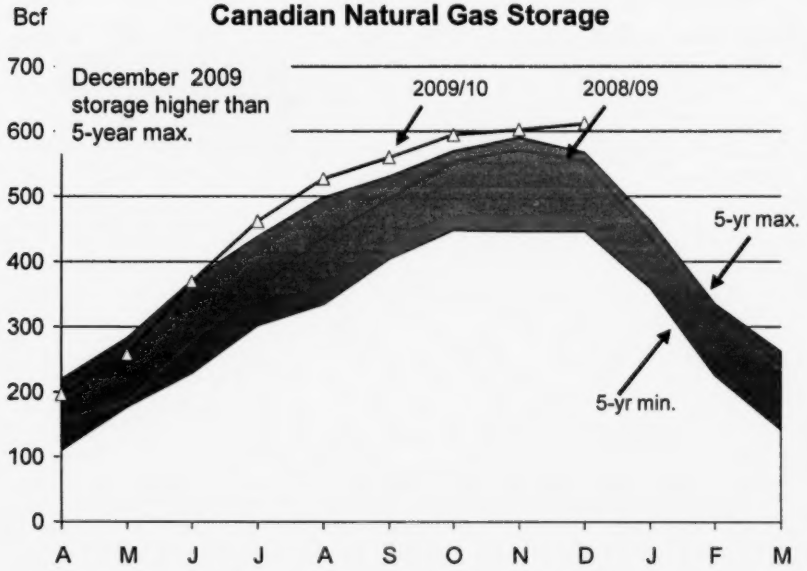
Source: National Energy Board

Figure 6 illustrates natural gas imports to Canada. Most natural gas is imported into Canada through major import points in southern Ontario. Imports into southern Ontario will likely rise in the future, as the province purchases more gas from the rest of North America due to flat production in the Western Canadian Sedimentary Basin. Presently, import volumes are significantly less than export volumes, and Canada remains a net exporter of natural gas.

In October 2009, natural gas imports to Canada were 43 Bcf, 27% higher than October 2008.

Figure 7

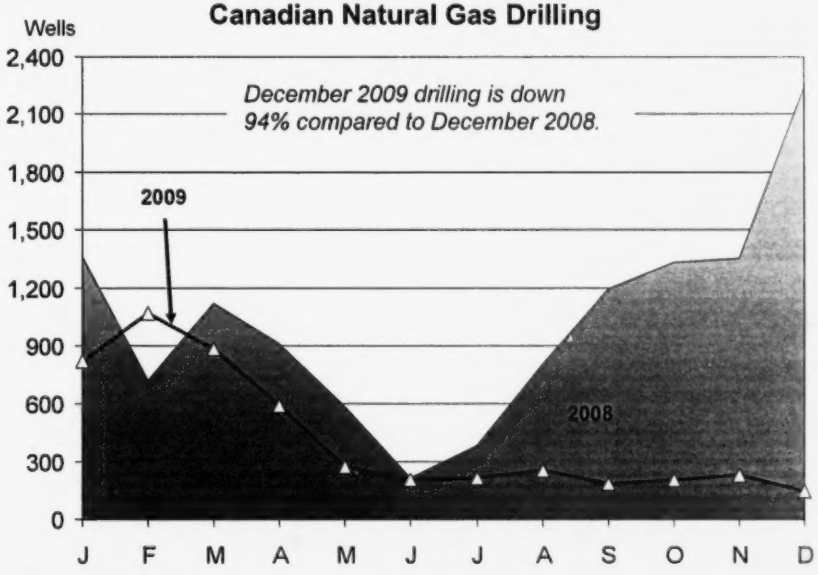
Canadian Natural Gas Storage



Source: Canadian Enerdata

Figure 8

Canadian Natural Gas Drilling



Source: Daily Oil Bulletin

Figure 7 illustrates natural gas storage levels in Canada. The amount of gas in storage generally follows a seasonal pattern. In the summer, when natural gas demand is low, gas is injected into storage. Storage volumes peak in the fall. In winter, volumes are drawn down, reaching a low point in the spring.

Canadian natural gas storage inventories increased 10 Bcf during the month of December 2009 compared to November 2009. Storage levels in December 2009 were 611 Bcf, 10% higher than the year prior, and significantly above the 5 year maximum.

Figure 8 depicts the number of natural gas well completions in Canada. There is a time-lag between drilling a gas well and starting production, due to the work necessary to connect the new well to the pipeline grid. Drilling is therefore a good indicator of future natural gas supply.

There were 144 natural gas wells drilled in December 2009, a decrease of 94% from December 2008. Overall, 2009 wells drilled were 58% less than 2008.